

### AMENDMENTS TO THE SPECIFICATION

Please replace the entire "Background of the Invention" beginning at page 1 with the following amended paragraphs:

Colorectal cancer is one of the most common malignant tumors of the ~~[[world,]]~~ world; it is the second most frequent cause of malignant tumor related mortality in developed countries. In developed countries, mortality rate caused by colorectal cancer seems have a progressively descending tendency ~~progressively in the past previous-20~~ progressively in the past ~~[[years,]]~~ years. ~~the main causes for~~ There are motivations for early diagnosis ~~is provided~~ and ~~[[the]]~~ for improvement ~~[[of]]~~ in methods of therapy and medicines. ~~But in~~ In Taiwan ~~the reason of changing in diet habit is occidental habit input and the rapid changing in environment,~~ the rate of suffering for colorectal cancer is rising constantly, furthermore, there is evidence of ~~also showing~~ an age-descending tendency.

According to a 2002 survey by the Department of Health (DOH), the highest level of the executive branch in Taiwan, on the top ten related cancer of Taiwanese population of 2002, colorectal cancer (CRC) is the third leading cause of cancer-related death for male and female, ~~which is announced by The Department of Health (DOH), highest level of the executive branch, Taiwan.~~ About 6681 new cases of colorectal cancer were

diagnosed ~~per year such as~~ according to statistical data by DOH ~~[[of]]in~~ 1999, ~~and[[for]]~~ 3649 patients ~~[[dead]]died in Taiwan due to~~ ~~[[in the]]~~ colorectal cancer ~~per year according to such as~~ statistical data by DOH ~~[[of]]in~~ 2002 ~~in Taiwan~~. The average age of colorectal cancer patient is lower than other countries. In other words, twenty-year-old or thirty-year-old people suffer from the colorectal cancer in Taiwan. Therefore, we can't ignore the possibility of the colorectal cancer occurring in younger populations ~~caused by young person~~.

Although methods of diagnosis and surgical operation treatment have ~~[[are]]~~ improved for colorectal cancer patients, ~~[[if]]~~ when one makes ~~[[make]]~~ a comparison between early diagnosis with later period diagnosis by surgical operation ~~respectively~~, ~~[[the]]~~ treatment is able to probably overcome ~~[[the]]~~ colorectal cancer in early diagnosis, but is not able to absolutely overcome ~~[[the]]~~ colorectal cancer in ~~[[the]]~~ later period diagnosis. ~~[[The]]~~ Thus far metastasis are the main problem ~~[[of]]in~~ the treatment for the colorectal cancer, therefore, ~~[[if]]~~ a method with high~~[[ly]]~~ sensitivity, high~~[[ly]]~~ specificity and ~~[[easily]]easy~~ diagnosis that can ~~which is~~ able to detect early and potentially curable CRC, ~~We believe that is~~ would be a novel target for CRC diagnosis and therapy.

The present invention is to provide functional genetic method, for

diagnostic genes of colorectal cancer consist of 71 types of genes, that can be applied for early diagnosing possibility of recurrence and metastasis for colorectal patients. Simultaneously, tracing of 100 colorectal cancer cases have found a 92% genes variation in colorectal tissue. In the process of tracing for 100 colorectal cancer cases simultaneously, mutation of genes is found in 92% colorectal cancer tissues. In the tracing process, although CEA of 16 patients remained in normal value range, the method can detect early tumor cells in blood by using genes variation testing.

In WO055351, ROSEN CRAIG A et. al., entitled "Human Colon Cancer Associated Gene Sequences And Polypeptides", disclose colon cancer related polynucleotides and the polypeptides encoded by the polynucleotides herein collectively known as "colon cancer antigens", screening methods for identifying agonists and antagonists of colon cancer antigens of the invention. But, the present invention is to provide SSH and cDNA microarray technology to identify candidate marker genes which are overexpressed continuously from colorectal proliferous polypus to colorectal oncogene, detecting overexpressed genes are selected from up regulation genes which related intently in colorectal cancer oncogene, and down regulation genes which related in colorectal cancer oncogene.

The total 71 genes are used to diagnosing early colorectal cancer.

Please replace the entire "Summary of the Invention" beginning at page 4 with the following amended paragraphs:

### **Summary of the invention**

Therefore, the main purpose according to ~~[[this]]~~the present invention is to provide ~~[[the]]~~ methods of clinical diagnosis for colorectal cancer for early diagnosis, specificity, highly sensitivity and safety.

For the purpose stated above, the ~~gene sequences comprise~~ method comprises the steps of: (1) deriving epithelium cells from normal intestines, polypus of intestines and colorectal cancer tissue; (2) collecting genes with highly differential gene expression by Suppression Subtractive Hybridization (SSH), and building ~~[[library ;]]~~ library; (3) deriving colonies with relatively high signal intensities from cancer tissue; (4) collecting more clinically cancer tissues by Northern Hybridization, real-time Polymerase Chain Reaction (PCR) combined with analysis of bioinformation to affirm variation between differential gene expression; and (5) selecting the most suitable genes from said library. Moreover, the reagent uses the gene sequence as method of clinical diagnosis for colorectal cancer to the early diagnosis.